

REMARKS

Claims 1-25 are pending in the application. Claims 1-25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,246,981 to Papineni et al. ("Papineni") in view of U.S. Patent No. 5,748,841 to Morin et al. ("Morin") for the reasons set forth on pages 2 and 3 of the Office Action. Applicants respectfully traverse the claim rejections as being unsupported by the cited references.

The inventions of claims 1, 10 and 19 are, in general, directed to systems and method for managing dialog across multiple applications and input modalities in a conversational system. A dialog manager processes user commands to determine the target application and execute the appropriate method associated with the command and target application. In other words, the application associated with the user command is unknown to the dialog manager, but the dialog manager determines the target application by determining the current context via a history of events.

Advantageously, a dialog manager according to the present invention can distinguish tasks among a plurality of active applications and manage the tasks among the plurality of active applications, thereby allowing a user to interact with the plurality of active applications simultaneously. The claimed inventions, provide an improvement over conventional systems wherein a user is only permitted to interact with a single application at a given time. The user must specify which application to use and must finish working with the application.

To establish a prima facie case of obviousness, various criteria must be met. For instance, there must be some suggestion or motivation in the references or in the knowledge generally available to one skilled in the art to combine the reference teachings. In addition, the prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination must both be found in the prior art and not based on applicant's disclosure (see, e.g., MPEP 2141, 2143, 2143.03). It is respectfully submitted that for at least the reasons set forth below, the combination of Papineni and Morin is legally deficient to establish a prima facie case of obviousness under 35 U.S.C. 103 to support the rejection of claims 1, 10 and 19.

For instance, the combination of Papineni and Morin does not disclose or suggest a dialog management system and protocol for managing dialog across multiple applications, as essentially claimed in claims 1, 10 and 19. Indeed, although Papineni discloses a method for dialog management in a conversational system, Papineni does not disclose a dialog management system and protocol for managing dialog across multiple applications. In contrast, Papineni discloses a "task-oriented" system which manages a plurality of tasks for a particular application-specific domain (see, e.g., Papineni, col. 1, lines 12-14; col. 5, lines 63-64; and Fig. 1 (Application-specific backend 60)). Indeed, Papineni discloses that the behavior of the dialog manager is described in a "script" which includes the specification of all forms in the given application-specific domain, wherein each form corresponds to a task in the application-specific domain (col. 6, lines 51-60).

Further, although Papineni discloses that the dialog manager is "application blind" (as pointed to by Examiner in col. 6, line 44 - Col. 7, line 5), Papineni clearly explains that the term "application blind" means that (i) the same dialog manager can be used to build different applications, wherein the interaction between the dialog manager and the backend is specified in the script; and that (ii) the programming logic of the dialog manager is separate from the backend logic (col. 7, lines 6-11). In other words, although the dialog manager can be used for different applications, Papineni does not disclose a dialog manager that simultaneously manages tasks across different applications by determining the current context for a target application via event history, as essentially claimed in claims 1, 10 and 19.

Moreover, Morin does not cure the deficiencies of Papineni. Morin is directed to a natural language modeling system, wherein a dialog system allows a user to communicate with an application using nature language words, etc. (col. 3, lines 5-10). Although Morin arguably discloses a dialog manager that uses history to determine current context, the dialog manager system is application-specific (see, e.g., Fig. 1, block 22 and application-specific task manager 72), and Morin does not disclose or suggest simultaneous dialog management across different applications. Thus, the combination of Papineni and Morin does not disclose or suggest the claimed inventions of claims 1, 10 and 19.

Furthermore, because Papineni and Morin are directed to application specific systems, one of ordinary skill in the art would not be motivated by the teachings of Papineni and Morin to develop a dialog management system for managing dialog across multiple active applications.

Accordingly, for at least the above reasons, claims 1, 10 and 19 are believed to be nonobvious and patentable over the combination of Papineni and Morin.

Claims 2-9 depend from claim 1, claims 11-18 depend from claim 10 and claims 20-25 depend from claim 19. As such, these claims are believed to be nonobvious and patentable over the combination of Papineni and Morin at least for the reasons given above for respective base claims 1, 10 and 19.

Accordingly, the withdrawal of all the rejections under 35 U.S.C. §103(a) is respectfully requested.

Early and favorable consideration by the Examiner is respectfully urged. Should the Examiner believe that a telephone or personal interview may facilitate resolution of any remaining matters, it is requested that the Examiner contact Applicants' undersigned attorney.

Respectfully submitted,



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